

# **PROTECTING OUR CHILDREN AND THEIR ENVIRONMENT:**

**AN INVESTIGATION TO DETERMINE WHETHER  
RELEASES OF OIL OR HAZARDOUS MATERIALS ARE  
AFFECTING  
SCHOOLS AND ENVIRONMENTAL JUSTICE AREAS IN  
FALL RIVER, MASSACHUSETTS**



**Prepared by the Bureau of Waste Site Cleanup  
Massachusetts Department of Environmental Protection**

June 2005

## EXECUTIVE SUMMARY

---

The mission of the Massachusetts Department of Environmental Protection (DEP) is to protect and enhance the quality of the Commonwealth's natural resources – its air, water and land – in order to protect the health, safety and welfare of its citizens. DEP's Bureau of Waste Site Cleanup is responsible to ensure timely and effective responses to over 2,000 environmental emergencies each year, such as oil spills and chemical fires, and to ensure that more than 6,000 contaminated properties across the Commonwealth are cleaned up properly. The regulations that govern the investigation and cleanup of chemical spills and contaminated property in Massachusetts are known as the Massachusetts Contingency Plan (MCP). DEP is also committed to keeping citizens informed about important environmental matters that may affect their communities. To that end, DEP's Bureau of Waste Site Cleanup (BWSC) has prepared this report to update the citizens of Fall River on the status of environmental cleanups in certain key areas of the city.

The objective of this study was to ensure that MCP sites and facilities that generate hazardous waste do not pose risk to children attending school in Fall River or residents living in environmental justice areas. DEP conducted a targeted exposure pathway assessment and a regulatory compliance evaluation of MCP sites and facilities that generate hazardous waste in the City of Fall River to determine if they have the potential to adversely impact the health, safety and welfare of school children, a particularly sensitive receptor group or residents in environmental justice areas. DEP evaluated all response actions conducted at MCP sites located within 1000 feet of 48 Fall River schools as well as targeted response actions conducted at MCP sites located in designated environmental justice areas in Fall River.

DEP designed the exposure pathway assessment to: evaluate the types and concentrations of chemicals released at a site; determine if the chemicals impacted soil, groundwater and/or air quality; and ultimately, whether any "sensitive receptor" (such as a child) could be exposed to or come into contact with environmental contamination. DEP designed the compliance evaluation to determine whether the parties legally required to clean up the MCP sites were conducting response actions in accordance with MCP performance standards and cleanup deadlines.

MCP sites and hazardous waste facilities were prioritized based upon the relative potential risk for children to be exposed to soil, groundwater and/or air contamination from these locations. Highest priority was given to releases that could impact indoor air in nearby schools or homes and sites where children might come into contact with contaminated surficial soil or could be exposed to contaminated fugitive dust blowing off-site.

To implement the exposure pathway assessment and regulatory compliance evaluation, DEP conducted file and data reviews, audited cleanup reports, and evaluated the compliance status of the parties required to cleanup the MCP sites identified throughout the study area. DEP also conducted targeted inspections of MCP sites with operating cleanup systems and selected facilities that generate hazardous waste in the study area.

DEP evaluated a total of 89 reported releases of oil or hazardous materials at MCP sites located within 1000 feet of 33 schools and at additional locations within a designated environmental justice area. No releases were reported within the 1000-foot radius of 15 schools. DEP also evaluated businesses that generate hazardous waste in the same target areas.

The exposure pathway assessment revealed that:

- No site conditions were found that could pose a health risk as a result of indoor air contamination caused by vapor migration from contaminated groundwater into nearby homes or schools;
- No sites were found that pose a health risk to nearby residents or school children as a result of a direct contact hazard or airborne dust from surficial soil contamination; and
- No MCP sites in the study area were found to impact the drinking water provided to residents of Fall River. Fall River is served by a public water supply system with reservoirs outside the study area.

The regulatory compliance evaluation findings include:

- Response actions conducted by parties responsible for the contamination have been conducted properly at the majority (87%) of sites within the study area.
- DEP identified 12 sites where response actions were found to be inadequate or behind schedule. Site conditions were evaluated at these locations and found not to pose risk to schools or nearby residents. DEP initiated enforcement actions in order to get the parties responsible for the cleanups back on schedule.
- As a result of its enforcement efforts, DEP has raised the compliance rate to 96% and anticipates the remaining locations will return to compliance in the near future.

DEP is committed to continue auditing response actions at MCP sites and taking enforcement actions when necessary to ensure that contamination is cleaned up properly and on time in Fall River and across Massachusetts.

An electronic copy of this report can be found at DEP's web site: **[Mass.Gov/dep/bwsc/school.htm](http://Mass.Gov/dep/bwsc/school.htm)**.

If readers would like more information about this evaluation or any specific MCP site in Fall River, please contact:

Gary Moran, Regional Director  
Massachusetts Department of Environmental Protection  
20 Riverside Drive  
Lakeville, Massachusetts 02347

Phone: 508.946.2712

Fax: 508.947.6557